

flooding from storm surges presents problems apart from the actual surge on the coast. The surge on inland waterways, as occurred on the Mississippi River, is also different in time and extent from the coastal surge.

In low coastal areas, such as the entire Louisiana coast, the surge is disposed of mainly by the sea water spreading over the lowlands, sometimes as far inland as 50 mi. The invasion of the surge water into the marshes creates and expands open bodies of water. The waves, generated by the wind over these bodies, help to transport greater amounts of water inland. The return of this water to the sea is a slow complicated process.

The tilting of water in inland lakes, such as occurred on Lake Pontchartrain, must be taken into consideration along with the surge to determine flooding possibilities.

As more industries and people continue to move into coastal areas subject to flooding, the determination of the extent of inland flooding becomes increasingly important for the protection of life and property. It is also becoming more difficult to determine the extent of the flooding. The continual construction or changing of levees, canals, navigable waterways, drainage, protective barriers, and other factors, contribute to the complexity of the inland inundation problem. Further complications arise by the changes which occur in the maze of levees. Natural changes, erosion and subsidence take their toll; also pilfering of the fill or actual cutting of the levees weakens the systems.

The loss of life, 57, in southern Louisiana, in hurricane Betsy occurred mainly from the inland flooding rather than from the actual surge on the immediate coast. A large part of the billion dollar loss was a result of inundation well away from the coastline. Except for the mass evacuation of 300,000 persons from the low coastal area, the loss of life in Betsy would have been appalling. Even when the storm surge on the coast can be ade-

quately forecast, the problems of forecasting the extent of inland flooding must be resolved by extensive study and knowledge of the contributing factors for the area involved. Only when the extent of the flooding behind protective barriers for certain areas is reasonably anticipated can a major catastrophe be averted in some future storm.

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CORRECTION NOTICE

No. 1, January 1968, front cover, Contents, pp. 39-46: latter part of title of paper by Maunder should read "—A New Zealand Example."